

STATEMENT OF PROJECT OBJECTIVES

Office of Energy Independence – State of Wisconsin
Recovery Act: Expanding the WisconSEN Program

A. PROJECT OBJECTIVES

Expanding the WisconSEN Program aims to assist the Office of Energy Independence's (OEI), along with committed partners to: 1) complete Energy Savings Assessments (ESA) and provide follow-up project implementation assistance; 2) conduct Save Energy Now (SEN) training events and outreach; 3) provide American National Standards Institute (ANSI) pilots at Wisconsin industrial facilities; 4) increase industrial project energy savings through implementation of ESA recommendations, supported by project grants and technical and decision-making support to industrial facilities; and 5) promote new, emerging technologies through demonstrations and case studies. The program also aims to maximize the preservation and creation of jobs by investing in assessments, technology and training, while continuing to support the goals of reducing industrial energy usage by 2.5% by 2025.

B. PROJECT SCOPE

As stated in the *Funding Opportunity Announcement DE-PS36-08GO98033 (Save Energy Now: State, Regional and Local Delivery)*, with respect to the Energy Independence and Security Act (EISA) of 2007:

“Building on the success of the national Save Energy Now campaign, the Industrial Technologies Program (ITP) is seeking to engage State Energy Offices, [etc.] as partners in order to reach more industrial customers and achieve even greater energy savings. The states, along with these other key partners, will play a major role in this effort by enabling an increased number of industrial facilities to be made aware of the ITP resources. In addition, these local and regional organizations will leverage the national ITP resources with the wealth of other industrial energy efficiency and economic development resources that are brought to bear by the participating partners and others.... Efforts should focus on outreach, education, project identification, project implementation and recognition of those facilities that adopt, implement and achieve energy intensity reduction of at least 2.5% annually and the associated reduction in carbon emissions.”

In order to support the ITP goal to reduce industrial energy usage by 2.5% by 2025, the proposed project will provide industrial customers with expert advice and real, actionable, supported energy efficiency choices. Through a partnership with existing local programs that can provide project implementation support, participating customers will implement energy saving projects to help achieve this goal.

Over the three and a half year grant period, Wisconsin will conduct 52 U.S. Department of Energy (DOE) Energy Savings Assessments and 43 Industrial Assessment Center (IAC) assessments. Recommendations from these assessments will be supported through the partners in this program. In addition, this project will provide sponsorship and logistical support for four DOE Qualified Specialist Trainings and six DOE Technology Assessment Trainings that will support customer analysis and decision-making. Wisconsin will develop three beta test sites for new ANSI energy efficiency protocol spearheaded by the DOE. Finally, in Phase 2, two to three emerging technology demonstrations will be conducted.

C. TASKS TO BE PERFORMED

BUDGET PERIOD I: WisconSEN Phase I

Task 1.0 Large Energy Savings Assessments (ESAs)

Under the Wisconsin Save Energy Now Assessment Program, the program goal is to complete twenty-two (22) ESAs in Phase 1. The assessment protocol will emulate the DOE SENA approach and employ certified Energy Experts to provide software training (SSAT, PSAT, etc.), data collection, and reporting of results and recommendations. Local energy specialists who have obtained the Qualified Specialist level of training will also be encouraged to conduct ESAs and to qualify and become certified Energy Experts. We estimate that three to five facility personnel will be trained at each ESA event. These assessments will primarily target studies in energy saving systems such as compressed air, fans and pumps, steam, process heat, and paper machines. Partners will provide 50 percent of labor costs as matching funds for the assessments, as well as in financial incentives for energy efficiency improvements recommended by the studies.

The WisconSEN Program will manage the conduct of the assessments being proposed, including the selection of and contracting with the Expert performing the assessment, scheduling the assessment with the facility, making sure the Expert gets to the plant and conducts the assessment and that the report is completed and that the report results are submitted into the DOE ESAM's database.

Subtask 1.1 ESA Marketing, Outreach, and Recognition

OEI's partners will provide marketing and outreach through their program channels, including their association networks and program databases. The databases will be used to identify customers in the eligible range and who would be likely candidates for ESAs. Special marketing materials, to be disseminated through energy advisors, website, and special mailings, will describe the program offer and emphasize the customer's ability to leverage additional program resources, including the array of financial incentives and technical support. Customer contact will be accomplished through direct calls, e-mails, announcements at association meetings, association newsletters, utility newsletters and e-mail blasts, market ally connections, and the program websites. This proposal will include a recognition program, particularly for customers who achieve at least a 2.5% reduction in energy use, including a media plan. Partners on the project work with industry associations and support their conferences which provide excellent opportunities for recognizing their members' achievements.

Subtask 1.2 ESA Customer Recruiting, Intake and Scheduling

The program will promote and manage all of the logistics to sign up customers for ESAs, including promotion, participant recruitment, enrollment, coordination with DOE Certified Energy Experts, scheduling, reporting, and tracking. Requesting customers will be screened for energy use eligibility. Plant identification and recruitment will be coordinated directly with the project partners. Wisconsin's largest industrial customers from the food/dairy, pulp and paper, metal casting, plastics, and printing industries with annual consumption of at least 0.1 TBtu will be targeted. Those facilities using between 0.1 TBtu and 0.3 TBtu will be offered whole facility surveys in accordance with standard energy audit protocols, such as MSE 2000 and the Practical Energy Management (PEM).

Subtask 1.3 Energy Experts and Assessments

This program will draw primarily from the pool of certified Energy Experts to conduct ESAs in the various technology areas that DOE has identified, including Paper Machine Studies. Any local Qualified Specialists from Wisconsin and from Industrial Assessment Centers will also be invited to conduct ESAs that can be done at a beginner's level. At a minimum, assessments will include the elements prescribed and required by the DOE protocol. These include: pre-assessment to gather and analyze baseline data, including energy systems, identification of appropriate plant personnel, and commitments; assessment, including a kick-off meeting, plant tour, strategy development, data collection, and a close-out meeting; and post-assessment, including report development, data uploads to DOE, and reporting.

Subtask 1.4 ESA Customer Reports

Reports completed by DOE-certified Energy Experts will be provided to the customer, to the DOE, and the project partners. Reports to facilities will include oral and written presentations of data, findings, recommendations, energy savings, project costs, and project economics (including net present value of savings and customer payback). Reports will be sent to the DOE by the Energy Expert/Qualified Specialist in accordance with DOE requirements for review and editing. A separate database of projects will be developed and maintained. This database will include contact information for company, specialists, and apprentices; the type of assessment completed; scheduling information; energy savings potential; recommendations; planned and implemented projects; and savings.

Subtask 1.5 ESA Partner Project Follow-up

OEI's partners, will communicate ESA information to their respective programs to enable their field advisors to provide customers with additional technical support, internal business case promotion, and project funding. The partners will coordinate with the appropriate program energy advisor and the Energy Expert for the presentation of results. Energy Experts and program advisors will identify the individual customer's internal barriers to developing projects from the ESA recommendations and find ways to overcome those barriers. Energy Experts and program advisors will review the effectiveness of the ESA services and determine ways to improve them. The partners provide significant project funding to support project implementation.

Subtask 1.6 ESA Database Maintenance and Tracking

OEI's subcontractors will keep a database of applicant customers, including contact information, DOE Energy Experts, ESA schedule, ESA status, customer reports, recommendations, potential energy savings, estimated carbon reduction, job creation and retention information, and other information deemed important for this program and available from the reports or from energy advisor interaction with the customer. The database will also coordinate with DOE's ESA Management System in order to ensure completeness and quality control.

Task 2.0 Small and Medium Industrial Assessments

Based on customer size estimates, OEI partners will conduct and fully fund IAC-type energy assessments for 15 customers in Phase 1 through this contract. The partner will also provide administrative expenses (e.g., customer recruiting, tracking, reporting, travel) for this task. These assessments will follow a similar format to the IAC assessments, and will be completed by a combination of program energy engineers and qualified engineering consultants. Utility members will use the assessments to identify and advance electric efficiency improvements

with its industrial efficiency incentives. Additionally, additional partners will be sought to support natural gas related incentives.

Task 3.0 ANSI Pilot

In cooperation with the DOE effort to pilot a new ANSI facility energy management protocol, OEI, through its partners, will develop beta test sites at least three facilities in Wisconsin during Phase 1. These test sites will serve as demonstration settings for facility managers to learn more about the new protocol. Participating sites will be provided an incentive.

Task 4.0 Trainers

OEI's partners will provide logistical support and Wisconsin venues for five special DOE training events in various best practice areas, including compressed air, steam, pump, and fan systems (two Qualified Specialist classes and three Technology Assessment classes [such as Fan Assessment]). Speaker fees and materials costs will be covered. All trainings arranged under this proposal will meet DOE protocols and specifications. Training will be evaluated through participant surveys and feedback will be provided to instructors. We will follow up with training participants to encourage customer projects.

Task 5.0 Administration and Reporting

OEI will provide up-to-date information on implementation progress for the various aspects of this program, including program status reports and financial status reports, that will include information on project development, promotions, training activities, continuous improvement efforts and all other aspects of this proposed program to the DOE, at least on a quarterly basis, and as requested. OEI will also comply with required metrics reporting as required by the American Recovery and Reinvestment Act, such as:

- Actual fuel reductions;
- Efficiency improvements;
- Energy cost savings;
- Jobs created/retained;
- Emission and greenhouse gas reductions;
- Economic improvements; and,
- Environmental benefits achieved as result of this program.

At the end of each 18 month phase, both an oral and a written progress report featuring achievements, program successes and challenges, will be provided to the DOE at the site that DOE designates.

Subtask 5.1 Standard Reports

OEI's partners will provide progress reports on program activities for all aspects of this proposal on a quarterly basis. OEI will report to DOE on overall program status, including progress toward goals. OEI will provide on-time reporting for this project as required by Federal Assistance Reporting Checklist, including but not limited to; program status reports, financial status report, state results metrics spreadsheet and input of assessments into DOE database.

Subtask 5.2 Project Review Meeting

OEI or its designee will provide a presentation to be given at least 60 days prior to the end of Phase 1. This presentation will give a project overview and discuss tasks completed at the Golden Field Office, Golden Colorado or other DOE-specified location.

BUDGET PERIOD II: WisconSEN Phase II

Task 1.0 Large Energy Savings Assessments

This Task will repeat the activities of Phase 1, Task 1.0 (Subtasks 1.1 – 1.6). ESA activities, objectives, and goals will all be at the same levels as for Phase 1 with the primary goal of completing thirty (30) more ESAs, including the training of three to five facility personnel at each event. The WisconSEN Program will continue to manage the conduct of the assessments being proposed, including the selection of and contracting with the Expert performing the assessment, scheduling the assessment with the facility, making sure the Expert gets to the plant and conducts the assessment and that the report is completed and that the report results are submitted into the DOE ESAM's database.

Task 2.0 Small and Medium Industrial Assessments

In Phase 2, OEI partner will conduct 28 additional IAC-type of energy assessments. See also Phase 1, Task 2.0.

Task 3.0 ANSI Pilot

This Task will build on the activities of Phase 1, Task 3.0. Pilots initiated in Phase 1 will be managed and monitored. The program will attempt to identify and develop up to five more beta test sites.

Task 4.0 Trainers

This Task will repeat the activities of Phase 1, Task 4.0 and conduct five special DOE training events to include two Qualified Specialist classes and three Technology Assessment classes.

Task 5.0 Administration and Reporting

This task will continue the activities and provide the same types of deliverables as Phase 1.

Task 6.0 Emerging Technology Demonstration and Commercialization

Subtask 6.1 Emerging Technology Demonstrations

OEI's partners will identify emerging technologies for Wisconsin that have promise for energy efficiency and reducing carbon emissions. The process of supporting the emergent technologies leads to new technology Best Practices, thereby enhancing energy efficiency opportunities as they arise and getting new technologies into the market sooner. This task will undertake two to three new, emerging energy efficiency technologies.

Subtask 6.2 Technology Commercialization

While many viable energy savings technologies have been developed through DOE's ITP programs often they have been slow to enter the market. As emerging technologies are proven through the previous task, they will be promoted through new efforts within the OEI partner programs.

Budget Period 1 Go No-Go Decision Points:

Task 1.0:

- Complete 70 percent of the proposed large plant ESA style assessments

Task 2.0:

- Complete 70 percent of the proposed small and mid-sized plant assessments

Task 4.0:

- Complete 3 of 5 proposed training events

Task 5.0:

- Meet all reporting requirements including metrics workbook and input of assessments into DOE database